

**Listing Of Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) An apparatus for generating one or more evaluation metrics associated with the performance of a statistical remultiplexer as a whole, the apparatus comprising:

a first input for receiving information related to an input bit stream to the statistical remultiplexer;

a second input for receiving information related to ~~the~~ an output bit stream from the statistical remultiplexer;

logic for generating said one or more evaluation metrics using the received information from both said input and said output bit streams that provides a quantitative measure of the performance of the statistical remultiplexer, wherein the information related to the input bit stream(s) and the output bit stream is obtained for one or more frames and input to a data reduction process over a specified time period and wherein the evaluation metric is an average value over the specified time period; and

at least one output for outputting said one or more evaluation metrics of the statistical remultiplexer.

2. (Previously Presented) The apparatus as recited in claim 1, wherein the evaluation metric is selected from a group comprising: an amount of bit rate reduction, a change in video quality, wasted output bandwidth, decoder buffer model data level, bit rate reduction characteristics, and time delay.

3. (Original) The apparatus as recited in claim 1, wherein the apparatus is integrated into a statistical remultiplexer.

4. (Original) The apparatus as recited in claim 1, wherein the apparatus is separate from and connectable to a statistical remultiplexer.

5. (Currently Amended) A method for generating one or more evaluation metrics associated with the performance of a statistical remultiplexer as a whole, the method comprising: receiving information related to an input bit stream to the statistical remultiplexer;

receiving information related to an output bit stream from the statistical remultiplexer;  
and

generating an evaluation metric utilizing the information received from the input bit stream(s) and the output bit stream, that provides a quantitative measure of the performance of the statistical remultiplexer as a whole, wherein the information related to the input bit stream(s) and the output bit stream is obtained for one or more frames and input to a data reduction process over a specified time period and wherein the evaluation metric is an average value over the specified time period.

6. (Previously Presented) The method as recited in claim 5, wherein receiving information related to an input bit stream comprises determining an input bit rate of said input bit stream, receiving information related to an output bit stream comprises determining an output bit rate of said output bit stream, and generating an evaluation metric comprises determining the amount of bit rate reduction performed by the statistical remultiplexer as a whole.

7. (Previously Presented) The method as recited in claim 6, wherein the input bit rate(s) of the input compressed bit stream(s) do not include a bit rate attributable to filler packets present in the portion of the input compressed bit stream(s), and wherein the output compressed bit rate does not include a bit rate attributable to filler packets.

8. (Original) The method as recited in claim 5, wherein the amount of bit rate reduction is a percentage of bit rate reduction.

9. (Original) The method as recited in claim 5, wherein the evaluation metric is generated by an evaluator.

10. (Previously Presented) The method as recited in claim 5, wherein receiving information related to an input bit stream comprises determining input video quality of said input bit stream, receiving output information related to an output bit stream comprises determining output video quality of said output bit stream, and generating an evaluation metric comprises determining a difference in video quality between the input bit stream(s) and the output bit stream.

11. (Original) The method as recited in claim 10, wherein the difference in video quality is based upon pixel measurements.

12. (Original) The method as recited in claim 10, wherein the difference in video quality is a means square difference.

13. (Original) The method as recited in claim 10, wherein difference in video quality is based upon a signal-to-noise ratio.

14. (Currently Amended) The method as recited in claim 5, wherein the evaluation metric is selected from a group ~~comprising~~ comprising: an amount of bit rate reduction performed, number of frames subjected to bit rate reduction, number of bits reduced per frame, change in video quality, wasted output bandwidth, decoder buffer model data level, bit rate reduction characteristics, and time delay.

15. (Cancelled)

16. (Withdrawn) A method for generating an evaluation metric associated with the performance of a statistical remultiplexer, the method comprising:

simultaneously measuring the reference clock time of an input compressed bit stream channel input to a statistical remultiplexer and the reference clock time of an output compressed bit stream channel output from a statistical remultiplexer;

calculating the difference of the reference clock time of the input compressed bit stream channel and the reference clock time of the output compressed bit stream channel; and

generating an evaluation metric associated with the time delay of the statistical remultiplexer.

17. (Withdrawn) The method of claim 16 further comprising:

determining the time-base shift of the statistical remultiplexer; and  
compensating the difference by the time-base shift.

18. (Withdrawn) A method for generating an evaluation metric associated with the performance of a statistical remultiplexer, the method comprising:

determining the amount of null packets present in at least a portion of an output compressed bit stream;  
determining the total available output bandwidth; and  
generating an evaluation metric associated with the amount of wasted bandwidth in the compressed bit stream output from the statistical remultiplexer.

19. (Withdrawn) The method as recited in claim 18, wherein the amount of wasted bandwidth is a percentage of wasted output bandwidth.

20. (Withdrawn) A method for generating an evaluation metric associated with the performance of a statistical remultiplexer having a decoder buffer model, the method comprising:  
determining a first level of data present in a decoder buffer model at a first time;  
determining one or more levels of data present in the decoder buffer model at different subsequent times within a time interval, T, measured from the first time; and  
generating an evaluation metric associated with the decoder buffer model fullness.

21. (Withdrawn) The method as recited in claim 20, wherein the evaluation metric is generated using the first and one or more levels of data by calculating at least one of mean level of data, maximum level of data, minimum level of data, variance in the level of data; and, median level of data present in the decoder buffer model over the time interval, T.

23-25. (Cancelled)

26. (Currently Amended) A device for generating one or more evaluation metrics associated with the performance of a statistical remultiplexer, the device comprising:  
means for receiving information related to an input bit stream to the statistical remultiplexer;  
means for receiving information related to the an output bit stream from the statistical remultiplexer;  
means for generating one or more evaluation metrics using the received information from both said input and said output bit streams that provides a quantitative measure of the performance of the statistical remultiplexer as a whole, wherein the information related to the input bit stream(s) and the output bit stream is obtained for one or more frames and input to a

data reduction process over a specified time period and wherein the evaluation metric is an average value over the specified time period; and

means for outputting said one or more evaluation metrics of the statistical remultiplexer.

27. (Previously Presented) The device as recited in claim 26, wherein the evaluation metric is selected from a group comprising: an amount of bit rate reduction performed by the statistical remultiplexer, a change in video quality attributable to the statistical remultiplexer, wasted output bandwidth by the statistical remultiplexer, decoder buffer level fullness, bit rate reduction characteristics of the statistical remultiplexer, and time delay attributable to the statistical remultiplexer.

28. (Currently Amended) A computer readable medium containing an executable computer program for generating one or more evaluation metrics associated with the performance of a statistical remultiplexer as a whole, comprising:

computer code for receiving information from an input bit stream to the statistical remultiplexer;

computer code for receiving information from ~~the~~ an output bit stream from the statistical remultiplexer;

computer code for generating an evaluation metric utilizing the information received from the input bit stream and the output bit stream that provides a quantitative measure of the performance of the statistical remultiplexer as a whole, wherein the information related to the input bit stream(s) and the output bit stream is obtained for one or more frames and input to a data reduction process over a specified time period and wherein the evaluation metric is an average value over the specified time period;

computer code for outputting the one or more evaluation metrics; and

computer readable medium for storing the computer code.

29. (Previously Presented) The computer readable medium of claim 28, wherein the evaluation metric is selected from a group comprising: an amount of bit rate reduction performed by the statistical remultiplexer, a change in video quality attributable to the statistical remultiplexer, wasted output bandwidth by the statistical remultiplexer, decoder buffer level fullness, bit rate reduction characteristics of the statistical remultiplexer, and time delay attributable to the statistical remultiplexer.